

化 学 品 安 全 技 术 说 明 书

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MSDS标题

ZINC PHTHALOCYANINE MSDS报告

产品标题

酞菁锌

CAS号

14320-04-8

化学品及企业标识

PRODUCT NAME

ZINC PHTHALOCYANINE

NFPA

Flammability	1
Toxicity	0
Body Contact	2
Reactivity	1
Chronic	0
SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4	

PRODUCT USE

Colourant. Phthalocyanine is a macrocyclic compound, It consists of four isoindole- class $[(C_6H_4)C_2N]$ units linked by four nitrogen atoms to form a conjugated chain, which take play in hosting various different metal ions in its centrer. This structure is Macrocyclic structure shows a striking feature as a colorant like porphyrins

(biopigments) in nature. Phthalocyanine derivatives derived from the basic compound of $(C_6H_4C_2N)_4N_4$ are used as light- fast blue or green pigments. The hosted metals and substituted groups result in distinct colors; phthalocyanine (blue- green), copper phthalocyanine (blue), chlorinated copper phthalocyanine (green), and sulfonated copper phthalocyanine (green). Recently they are involved in the study of photosensitizer chemistry or metal complex chemistry such as transition- metal complex catalyst chemistry for uniform polymerization, luminescence chemistry and spectrophotometric analysis, organic synthesis and polymerization. Phthalocyanine pigments are used in enamels, linoleum, inks, plastics, and rubber goods. Photoisomerizable phthalocyanines are used in rewritable CD or DVD printing. Some phthalocyanines such as fluoraluminium phthalocyanine are used in cancer treatment. Due to pi- electron cloud overlaps, phthalocyanines exhibit semiconductor property. Organic semiconductors have some merits of self radiation, flexibility, light weight, easy fabrication, and low cost. They have been investigated as organic electroluminescence materials for the applications in organic solar cells, biosensitizers and display devices such as OLED(Organic Light Emitting Diode), OTFT(Organic Thin Film Transistor), Wearable Display, and e- paper. Intermediate

SYNONYMS

C32-H16-N8-Zn

CANADIAN WHMIS SYMBOLS

None

EMERGENCY OVERVIEW

RISK

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The material has NOT been classified as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, unintentional ingestion is not thought to be cause for concern. Soluble zinc salts produces irritation and corrosion of the alimentary tract with pain, and vomiting. Death can occur due to insufficiency of food intake due to severe narrowing of the esophagus and pylorus.

EYE

Although the material is not thought to be an irritant, direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified using animal models); nevertheless exposure by all routes should be minimized as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray. Welding or flame cutting of metals with zinc or zinc dust coatings may result in inhalation of zinc oxide fume; high concentrations of zinc oxide fume may result in "metal fume fever"; also known as "brass chills", an industrial disease of short duration. [I.L.0] Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in enclosed or poorly ventilated areas.